

In the claims:

1. (Currently amended) An electromagnetic device comprising:
an electrically conductive core having an inner diameter defining an opening therethrough and an outer diameter, the core having sharp edges extending circumferentially around the inner diameter and around the outer diameter thereof;
a plurality of polymeric protection members wrapped circumferentially around the core and positioned adjacent the sharp edges of the core;
an adhesive layer between the protection members and the core connecting the protection members to the core; and
a coated wire wrapped around the core so as to be magnetically coupled thereto and around the polymeric protection members so as to be displaced from the sharp edges of the core; and
wherein at least one of the protection members further comprises a first end and a second end thereof, the first end and second end defining mating angles at an overlapping region of the protection members when the protection members are wrapped around the core so as to extend around all of one of the sharp edges of the core without a bump discontinuity at the overlapping region.
2. (Original) The device of Claim 1 wherein the protection members comprise L-shaped strips having a short leg positioned adjacent an end of the core and a long leg positioned adjacent a circumferential face of the core, wherein the short leg has a length selected to provide a substantially flat surface on the end of the core.
3. (Original) The device of Claim 2 wherein the outer diameter of the core is at least about 5 centimeters and wherein the length of the short leg is less than about .32 centimeters.
4. (Original) The device of Claim 2 wherein the outer diameter of the core is at least about 22 centimeters and wherein the length of the short leg is less than about 1 centimeters.

5. (Original) The device of Claim 2 wherein the adhesive layer is positioned adjacent the short leg of the protection members.

6. (Original) The device of Claim 5 wherein the long leg of the protection members directly contacts the core without an adhesive layer therebetween.

7. (Canceled)

8. (Currently amended) The device of Claim [[7]] 1 wherein the mating angles are between about 15 degrees and about 75 degrees.

9-13. (Canceled).

14. (Previously presented) The device of Claim 1 wherein the protection members comprise a crosslinked polymeric material having a dielectric strength selected to limit breakdown of the protection members caused by magnetic fields generated around the core.

15. (Original) The device of Claim 1 wherein the dielectric strength is at least about 200 volts/centimeter.

16. (Original) The device of Claim 1 wherein the polymeric material is stable at 150 degrees Centigrade for at least about 100 hours.

17. (Original) The device of Claim 1 wherein the crosslinked polymeric material comprises either medium or high density polyethylene.

18. (Currently amended) An electromagnetic device comprising:
an electrically conductive core having an inner diameter defining an opening therethrough and an outer diameter, the core having sharp edges extending circumferentially around the inner diameter and around the outer diameter thereof;

a plurality of polymeric protection members wrapped circumferentially around the core and positioned adjacent the sharp edges of the core, at least one of the protection members having at least one short leg positioned adjacent at least one end of the core, wherein the short leg has a length selected to provide a substantially flat surface on the end of the core when the at least one protection member is wrapped around the core; ~~and~~

a coated wire wrapped around the core so as to be magnetically coupled thereto and around the polymeric protection members so as to be displaced from the sharp edges of the core; and

wherein ones of the protection members further comprise a first end and a second end thereof, the first end and second end defining mating angles at an overlapping region of the protection members when the protection members are wrapped around the core so as to extend around all of one of the sharp edges of the core without a bump discontinuity at the overlapping region.

19. (Previously presented) The device of Claim 18 wherein the protection members comprise a crosslinked polymeric material having a dielectric strength selected to limit breakdown of the protection members caused by magnetic fields generated around the core.

20. (Original) The device of Claim 19 wherein the dielectric strength is at least about 200 volts/centimeter.

21. (Original) The device of Claim 19 wherein the polymeric material is stable at 150 degrees Centigrade for at least about 100 hours.

22. (Original) The device of Claim 19 wherein the crosslinked polymeric material comprises either medium or high density polyethylene.

23. (Original) The device of Claim 18 wherein the protection members comprise L-shaped strips having the at least one short leg positioned adjacent an end of the core and a long leg extending substantially transversely from the short leg and positioned adjacent a

circumferential face of the core.

24. (Canceled)

25. (Currently amended) The device of Claim [[24]] 18 wherein the mating angles are between about 15 degrees and about 75 degrees.

26. (Canceled).

27. (Original) The device of Claim 18 wherein the outer diameter of the core is at least about 5 centimeters and wherein the at least one short leg has a length of less than about .32 centimeters.

28. (Original) The device of Claim 18 wherein the outer diameter of the core is at least about 22 centimeters and wherein the at least one short leg each has a length of less than about 1 centimeters.

29. (Currently amended) A protection member for a device including a sharp-edged core and an elongate member wrapped therearound, the protection member comprising a polymeric L-shaped strip having a short leg configured to be positioned adjacent an end of the core, abutting a circumferentially extending sharp edge of the core, and a long leg extending substantially transversely from the short leg so as to be positioned adjacent a circumferential face of the core, wherein the short leg has a length selected to provide a substantially flat surface on the end of the core when wrapped around the core; and wherein the protection member further comprises a first end and a second end thereof, the first end and second end defining mating angles at an overlapping region of the protection member when the protection member is wrapped around the core so as to extend around all of the sharp edge of the core without a bump discontinuity at the overlapping region.

30. (Original) The device of Claim 29 wherein the outer diameter of the core is at least about 5 centimeters and wherein the at least one short leg has a length of less than about .32 centimeters.

31. (Original) The device of Claim 29 wherein the outer diameter of the core is at least about 22 centimeters and wherein the at least one short leg each has a length of less than about 1 centimeters.

32. (Original) The device of Claim 29 wherein an adhesive layer is positioned adjacent an inner surface of the short leg.

33. (Previously presented) The device of Claim 29 wherein the protection member comprises a crosslinked polymeric material having a dielectric strength selected to limit breakdown of the protection member caused by magnetic fields generated around the core.

34. (Original) The device of Claim 33 wherein the dielectric strength is at least about 200 volts/centimeter.

35. (Original) The device of Claim 33 wherein the polymeric material is stable at 150 degrees Centigrade for at least about 100 hours.

36. (Original) The device of Claim 33 wherein the crosslinked polymeric material comprises either medium or high density polyethylene.

37. (Original) The device of Claim 29 wherein the device comprises an electromagnetic device and wherein the elongate members comprise wires having an insulating coating thereon.

38. (Canceled)

39. (Currently amended) The device of Claim ~~[[38]]~~ 29 wherein the mating angles are between about 15 degrees and about 75 degrees.

40-55. (Canceled).

56. (Previously Presented) An electromagnetic device comprising:
an electrically conductive core having at least one circumferentially extending sharp edge;
at least one polymeric protection member wrapped circumferentially around the core and positioned adjacent the at least one circumferentially extending sharp edge of the core, the at least one protection member further comprising a first end and a second end thereof, the first end and second end defining mating angles at an overlapping region of the at least one protection member when the protection member is wrapped around the core so as to extend around all of the at least one circumferentially extending sharp edge of the core without a bump discontinuity at the overlapping region; and
an insulated wire wrapped around the core so as to be magnetically coupled thereto and around the at least one polymeric protection member so as to be displaced from the at least one circumferentially extending sharp edge of the core.

57. (Original) The device of Claim 56 wherein the mating angles are between about 15 degrees and about 75 degrees.

58. (Original) The device of Claim 57 wherein the at least one circumferentially extending sharp edge comprises a plurality of circumferentially extending sharp edges and wherein the at least one protection member comprises a plurality of protection members.

59. (Previously presented) The device of Claim 1 wherein the polymeric protection members are wrapped around the core without a wire therebetween.

60. (Previously presented) The device of Claim 1 wherein at least one of the polymeric protection members extends circumferentially around all of a corresponding one of the sharp edges.

61. (Previously presented) The device of Claim 1 wherein the polymeric protection members prevent the coated wire from contacting the sharp edges.

62. (Previously Presented) The device of Claim 1 wherein the polymeric protection members adhesively contact the core.

63. (Previously presented) The device of Claim 18 wherein at least one of the polymeric protection members contacts the core.

64. (Previously presented) The device of Claim 18 wherein the polymeric protection members are wrapped around the core without a wire therebetween.

65. (Previously presented) The device of Claim 18 wherein at least one of the polymeric protection members extends circumferentially around all of a corresponding one of the sharp edges.

66. (Previously presented) The device of Claim 18 wherein the polymeric protection members prevent the coated wire from contacting the sharp edges.

67. (Previously presented) The device of Claim 18 wherein the polymeric protection members adhesively contact the core.

68. (Previously presented) The protection member of Claim 29 wherein the elongate member has a length selected to extend circumferentially around all of the circumferentially extending sharp edge of the core.

69. (Previously presented) The device of Claim 56 wherein the at least one polymeric protection member is wrapped around the core without a wire therebetween.

70. (Previously presented) The device of Claim 56 wherein the at least one polymeric protection member prevents the insulated wire from contacting the at least one circumferentially extending sharp edge.

71. (Previously presented) The device of Claim 56 wherein the polymeric protection members adhesively contact the core.

72. (Previously presented) The device of Claim 56 wherein the at least one polymeric protection member contacts the core.